



GRAPHICAL USER INTERFACE FOR A SCREEN TELEPHONE

RELATED APPLICATION DATA

This patent application claims priority to U.S. provisional patent application
5 No. 60/098,187, filed August 26, 1998, and U.S. provisional patent application No.
60/122,975, filed March 3, 1999, which are hereby incorporated by reference.

FIELD OF THE INVENTION

The invention relates to telephony systems, and more particularly, relates to
10 graphical user interfaces and software architectures for telephony devices.

BACKGROUND OF THE INVENTION

Today's telephony devices are becoming increasingly more sophisticated. A
driving force of this trend is the convergence of functionality typically found in
15 computers with functionality found in conventional telephones. One significant
example of the convergence of phones and computers is a class of devices called smart
screen phones. Though the specific hardware configuration of these devices varies
widely, they typically share common elements such as a screen display, hardware
buttons, telephone line interface hardware and a processor. Despite the advanced
20 features that many of these devices provide, there is still need for improvement in
many areas.

First, some screen phones available today have a small text-based display,
typically arranged in a matrix of characters, and hardware buttons around the screen
that are associated with specific screen areas to create virtual or soft buttons. This
25 allows new functions to be programmed into the buttons over time, or as a result of
navigating through menu choices with the buttons. Usability testing and research have
shown that the mapping of a physical button and the on-screen text is often confusing
and hard to follow.

Another problem is that traditional enhanced telephony services are difficult to
30 use (such as call forwarding) because they require the user to remember arbitrary